

REMARKS

This Amendment, submitted in response to the Office Action dated July 9, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-18 remain pending in the application with claims 10-18 being withdrawn from further consideration at this time pursuant to the oral response to election requirement. The oral election of May 22, 2003, is affirmed.

As a further preliminary matter, the Abstract has been objected to for being too long. Applicant replaced the Abstract with the a new Abstract as set out above.

Turning to the merits of the Office Action, claim 1 has been rejected under 35 U.S.C. 102 as being anticipated by Usui et al (U.S.P. 4,714,326, hereafter "Usui"). Claims 1-7 have been rejected under 35 U.S.C. 102 as being anticipated by Stern (U.S.P. 5,771,321). Claims 8-9 have been rejected under 35 U.S.C. 103 as being unpatentable over Stern. Applicant submits the following arguments in traversal of the prior art rejections.

Applicant's invention relates to an image recording apparatus, including an exposure head and a modulator therefore. In conventional multi-channel imaging apparatus, an individual optic fiber is needed to guide light from a source to a modulator device. This increases the cost of the apparatus.

Applicant's invention, as illustrated by example in Fig 1, obviates these deficiencies. A light source 12 introduces light into a waveguide 14, having two segments 14a and 14b. As shown in Fig. 2, the light enters one face of the waveguide structure and exits an opposing face. Flexible transparent electrodes forming multiple modulators are formed above the waveguide

and spaced therefrom by a spacer 32. An electrode 26 underlying the waveguide section 14b disposed underneath the modulator causes the electrode 16 to flex and thereby modulate light.

Turning to the cited art, Usui relates to an optical switch. A right angle prism 1 is disposed opposite another right angle prism 2. A transparent flexible film 3 is disposed against the prism 2, separated from a pressing member 4 by spacers 7. A driving device presses the member 4 against the film. In the first position of the flexible element, incoming light 10 is deflected upwards to exit as light 11 (Fig. 1A). In a second position of the flexible element, the light 10 is transmitted as light 12 (Fig. 1B).

Stern relates to a flat panel display where stored light is selectively output to a display surface. Referring to Fig. 3A, a light storage plate 12 has a feature of total internal reflection such that light entering from a light source is not emitted from an opposing end face. See Col. 6, lines 34-40. Rather than emissions from an opposing end face, the light is controllably emitted through light taps having a mesa form 26 based on the placement of the flexible member 28. Col. 7, lines 13-27.

The Examiner contends that Usui teaches each feature of independent claim 1. However, the rejection is not supported for at least the following reason. The Examiner contends that a prism comprises an optical waveguide. This, in itself, is an improper reading of the claim. Even assuming, *arguendo*, that the prism comprises a waveguide, independent claim 1 further describes that the optical waveguide includes a first end surface receiving light, a second end surface emitting light, where the first and second surfaces oppose each other. Claim 1 further separately recites a boundary surface of the waveguide facing the flexible light transmitting member. The Examiner does not take into account the various faces and boundary surfaces in

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making the rejection. This is most clear with reference to Fig. 1A of Usui, where incoming light 10 exits as light 11. However, the faces of the prism where light enters and exits the prism do not oppose each other as described by the claim. The faces oppose the hypotenuse of the right angle prism but do not oppose each other. The claim further describes a boundary surface of the prism, and Usui does not teach this additional component without resort to improper double counting of elements. Therefore, Usui does not teach each feature of claim 1 for at least this reason.

The Examiner's anticipation rejection over Stern is similarly deficient. The Examiner contends that a storage plate 12 comprises a waveguide. However, as discussed above, the waveguide has first and second opposing faces for inputting and outputting light. However, the total internal characteristics of the light storage device do not allow for light emissions at the opposing face. In fact, permitting light to escape through the opposing face would undermine the display function of the reference. Therefore, Stern does not teach each feature of claim 1.

Because independent claims 4 and 9 include similar recitations regarding the waveguide configuration, claims 4 and 9 are also patentable for the reasons set forth above for claim 1. The remaining claims are patentable based on their dependency.

Applicant has added claims 19-24 to describe alternative features of the invention. Claims 20-22 are generic to the elected and non-elected inventions. Claims 20-22 are allowable over Stern and Usui for the reasons set forth above. Because the generic claims should be allowed, Applicant submits that all claims should be rejoined and allowed in the application.

In view of the above, Applicant submits that claims 1-24 are in condition for allowance. Therefore it is respectfully requested that the subject application be passed to issue at the earliest

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possible time. The Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

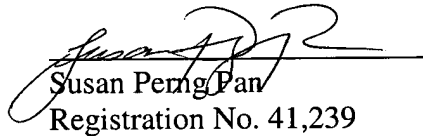
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